### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-023334 Address: 333 Burma Road **Date Inspected:** 17-Jun-2009

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes N/A No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A Delayed / Cancelled:

34-0006 **Bridge No: Component: OBG** Trial Assembly

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

3AE and 3BE

This Quality Assurance (QA) Inspector witnessed final tension verification for Upper Chevron 2Bolts Cross Beam side 3AE to 3BE from PP 19 to PP 23. Inspected 100% found satisfactory. Bolt sizes used are M22x 2.5 x 70 RC Lot No. DHGM220004 and final Torque required is 23Mpa. Hydraulic Torque wrench is been used with Pump Model No. MP 582-2; Pump Sr. No. PW090331002 and Wrench Sr. No. Y090415001 with no calibration, rest of the Upper Chevron bolts tension verification carried out for Cross beam side by Manual Torque wrench with Sr. No. X02-584.

3AE and 3BE

This Quality Assurance (QA) Inspector witnessed final tension verification for Floor Beam to I- Beam for Segment 3AE to 3BE Cross beam side between PP 19 to PP 23. Inspected 10% of bolt final tensioning found satisfactory. Bolt sizes used are M22 x 80 RC Lot No. DHGM220006 and DHGM220050 final Torque applied for

# WELDING INSPECTION REPORT

(Continued Page 2 of 2)

testing was 23 MPa. Hydraulic Torque wrench is been used with Pump Model No. MP 582-2; Pump Sr. No. PW090331002 and Wrench Sr. No. Y090415001 with no calibration.

3AE and 3BE

This Quality Assurance (QA) Inspector witnessed final tension verification for Angle connecting Floor Beam flange to Splice Plate for Segment 3AE to 3BE Cross Beam Side between PP 19 to PP 23. Inspected 10% of bolt final tensioning found satisfactory. Bolt sizes used are M22 x 75 RC Lot No. DHGM220005 final Torque applied for testing was 23 MPa. Manual Torque wrench that was been used was bearing Sr. No. X02-584. Noticed gap between splice plate and lower chevron, 1mm thick filler gauge slide down in the gap and notice filler gauge was touching the bolt.

3AE and 3BE

This Quality Assurance (QA) Inspector witnessed final tension verification for Side Panel to Side Panel Stiffener splice plate for Segment 3AE to 3BE Cross Beam and counter weight Side between PP 23 to PP 22. Inspected 10% of bolt final tensioning found satisfactory. Bolt sizes used for SP to SP Cross Beam side are M22 -2.5x 65 RC Lot No. DHGM220033 final Torque applied for testing was 470 N-m and Bolt sizes used for SP to SP Cross Beam side are M22 -2.5x 70 RC Lot No. DHGM220004 final Torque applied for testing was 453 N-m. Manual Torque wrench that was been used was bearing Sr. No. X02-584.

3AW and 3AE

This Quality Assurance (QA) Inspector observed gap between the splice plate and the box crossection for the lower chevron and prepared an incident report no. 040120F4\_TL-15\_B278\_06-17-09\_Lower\_ Chevron 3AW and 3BW PP 21.doc. Please refer for more comprehensive information.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

#### **Summary of Conversations:**

No relevant conversations were reported on this date.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math, Manjunath	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer